

Q4 Fuel Depot Project

ENVIRONMENTAL IMPACT ASSESSMENT
DRAFT BASIC ASSESSMENT REPORT
Executive Summary

DATE AUGUST 2019

Compiled by:

Setala Environmental
P.O. Box 36593
Menlopark, 0102
Contact person:
Ria Pretorius
Tel +27(0)82 568 6344
Fax +27(0)86 675 4026
Email ria@setalaenvironmental.co.za



Applicant:

Q4 Fuel Rustenburg (Pty) Ltd
14 Cobalt street
Zinniaville, Rustenburg, 0302
Contact person:
Piet Theron
Tel +27(0)82 698 0293
Email piet@q4.co.za



Executive Summary

1 INTRODUCTION

Q4 Fuel Rustenburg (Pty) Ltd (the applicant) appointed Setala Environmental as the independent Environmental Assessment Practitioner (EAP) to undertake the Environmental Impact Assessment (EIA) for the proposed expansion of the Q4 Fuel Depot, in Rustenburg.

The proposed project is located in Rustenburg X 9 Industrial Area, on the outskirts of the Rustenburg CBD, and falls within the Rustenburg Local Municipality.

An application for environmental authorisation is submitted in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), read with the Environmental Impact Assessment Regulations, 2014 (EIA Regulations), as amended.

2 APPROACH TO THE BASIC ASSESSMENT PROCESS

The approach followed by the consultants is based on the specifications for the Basic Assessment Report in terms of the Environmental Impact Assessment Regulations, 2014, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

The Department of Economic Development, Environment, Conservation and Tourism, North West Provincial Government (DEDECT), is the lead authority for this Environmental Impact Assessment (EIA) process and the development needs to be authorised by this Department.).

To ensure that all requirements and processes in terms of the Acts are followed the following tasks need to be conducted:

The following has to be submitted to the DEDECT:

- ✓ Application form for Authorisation
- ✓ Draft Basic Assessment Report
- ✓ Environmental Management Programme (EMPr)
- ✓ Final Basic Assessment Report

The environmental authority will review the Application and final Basic Assessment Report and the following decisions may be made:

- ✓ Grant authorisation of the activity
- ✓ Refuse the activity
- ✓ Request further information or investigations
- ✓ Refer the application to a scoping process where substantial additional investigations or assessments are required in order to make a decision.

3 PROJECT LOCALITY

The proposed project is located in Rustenburg X 9 Industrial Area, and falls within the Rustenburg Local Municipality. (Project indicated in red on the Site Location map).

The entire Erf is approximately 2.1633 ha, but the actual target area for the proposed expansion of the Fuel Depot is 0.087 ha. Cobalt Street forms the western boundary and access to the study site.

The GPS coordinates of the main landmarks within the project area are as follows:

- Study site location (approximate centre): 25°38'0.08"S; 27°13'57.85"E.

- Study Site entrance off Cobalt Street: 25°38'0.40"S; 27°13'55.07"E.
- Quarter Degree Square (QDS): 2527CA.
- Quaternary Drainage Area (QDA): A22H.

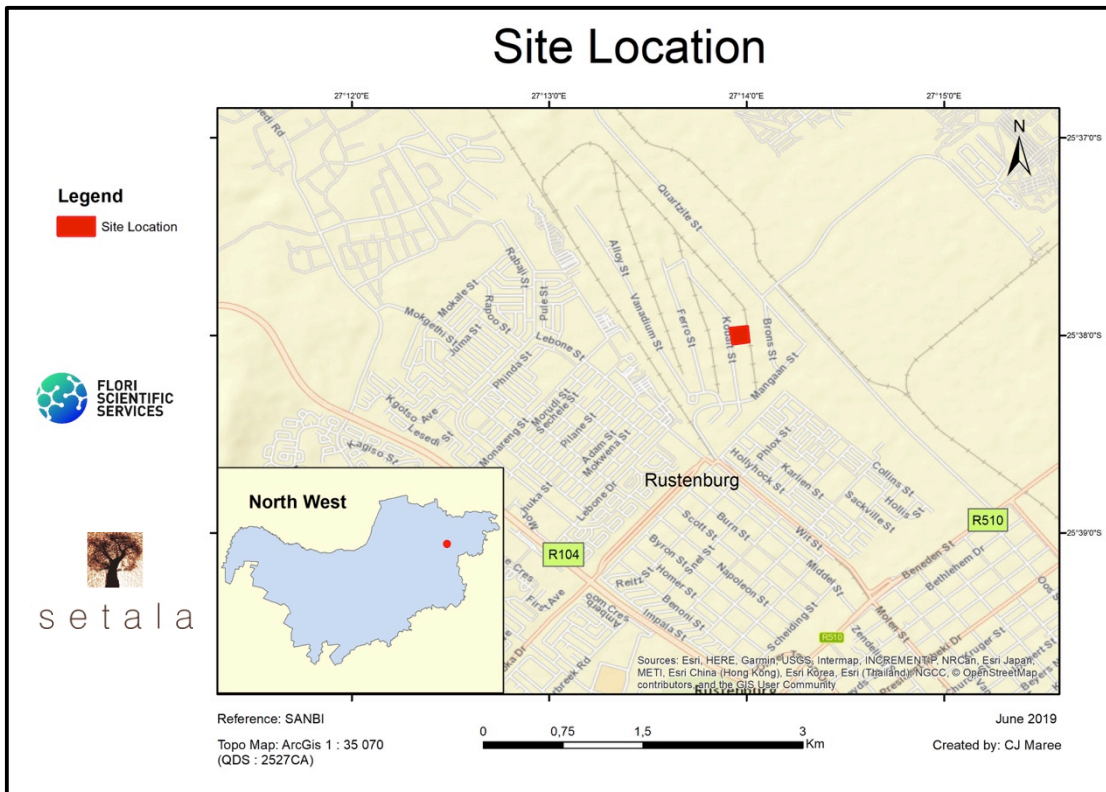


Figure 1: Site location

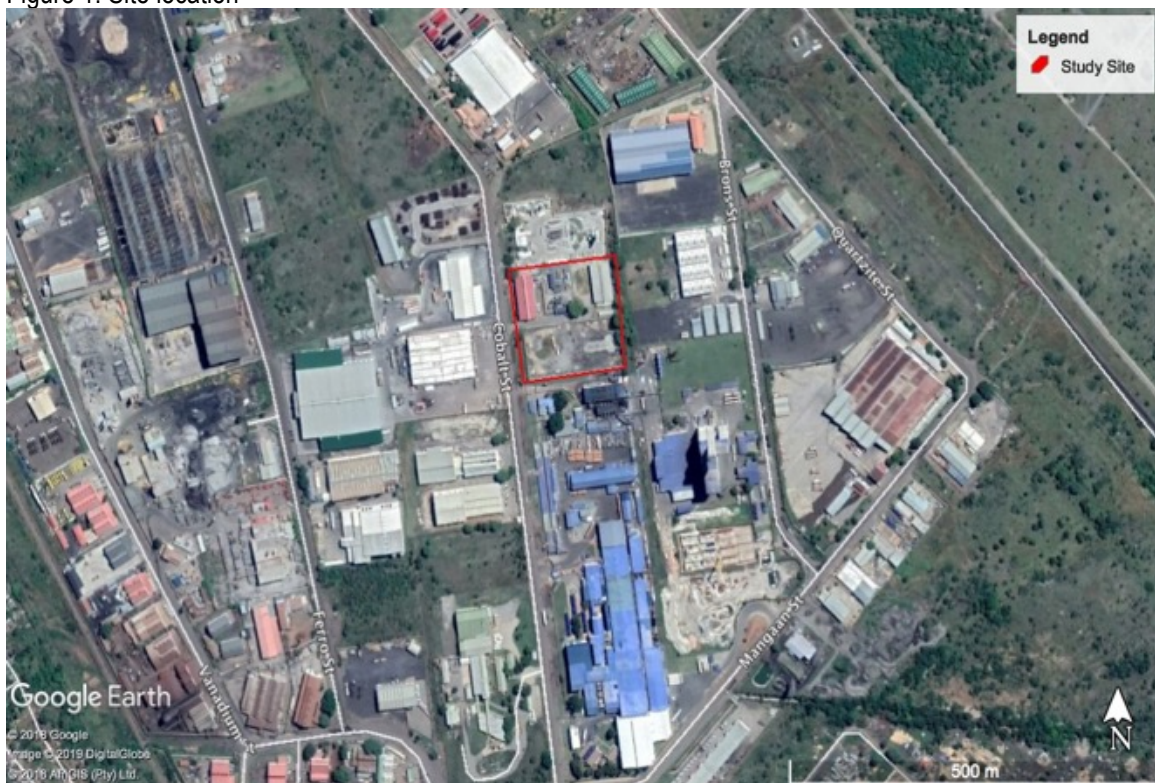


Figure 2: Study Site location (Google Earth)



Figure 3: Study site (Close Up)

4 PROPERTY DESCRIPTION

The extension of the fuel depot will be on Erf 2265, of the existing Rustenburg Extension 9, situated in the Rustenburg Local Municipality, North West Province. The project is on approximately 2.1633 hectares of land. The Surveyor-general 21-digit site (erf/farm/portion) reference number is T0JQ00270000226500000.

5 PROJECT DESCRIPTION

This application is for the proposed expansion of a fuel depot and associated infrastructure, situated in the Rustenburg X 9 Industrial Area. The applicant plans to expand on the existing facilities and the existing storage tanks of 2 x 23m³, and proposes to construct 5 x 83m³ tanks; 1 x 23m³ tank and 1 x 14m³ tank.

The applicant purchased the business in 2017, with existing facilities and the storage tanks of 2 x 23m³. These facilities were constructed in 1991. The site is leased to Q4 Rustenburg, the applicant. The development of the facility will be done by the applicant.

The Q4 Fuel Rustenburg is currently establishing themselves as a “non-refining wholesaler”. The depot will expand on its provision of fuel to customers in the areas surrounding Rustenburg. The combined capacity of the fuel tanks will not exceed 500 cubic metres.

As mentioned:

- Five above ground storage tanks, each having a storage capacity of 83m³ (equating to a total of 415m³)
- One above ground storage tank, having a storage capacity of 23m³ (equating to a total of 23m³),
- One above ground storage tank, having a storage capacity of 14m³ (equating to a total of 14m³) will be installed.

The combined capacity of the proposed new fuel tanks on site will thus be 452m³.

The total combined storage capacity on site **will thus not exceed 500m³** (cubic metres).

The full scope of works includes the construction/installation of:

- Expansion of the fuel depot and related uses
- Associated infrastructure including access road, civil services (water, sewer, stormwater reticulation and electricity)

The following facilities could be available:

- Fuel bay - The pump islands are strategically placed on site to prevent traffic flow problems, and to ensure maximum utilization of all servicing points
- Petrol and diesel categories under one roof
- Erection of a suspended forecourt roof above the dispensers to protect customers and dispensing facilities from the elements
- Construction of a concreted forecourt
- Storage yard for flammable products (e.g. oils and greases)
- Parking facility for vehicles
- Staff ablution facilities
- Ancillary offices
- Storage area
- State of the art security and camera surveillance will be installed
- Communication services will be readily available in the event of emergencies

As mentioned, the site has existing facilities and storage tanks of 2 x 23m³. These facilities were constructed in 1991.

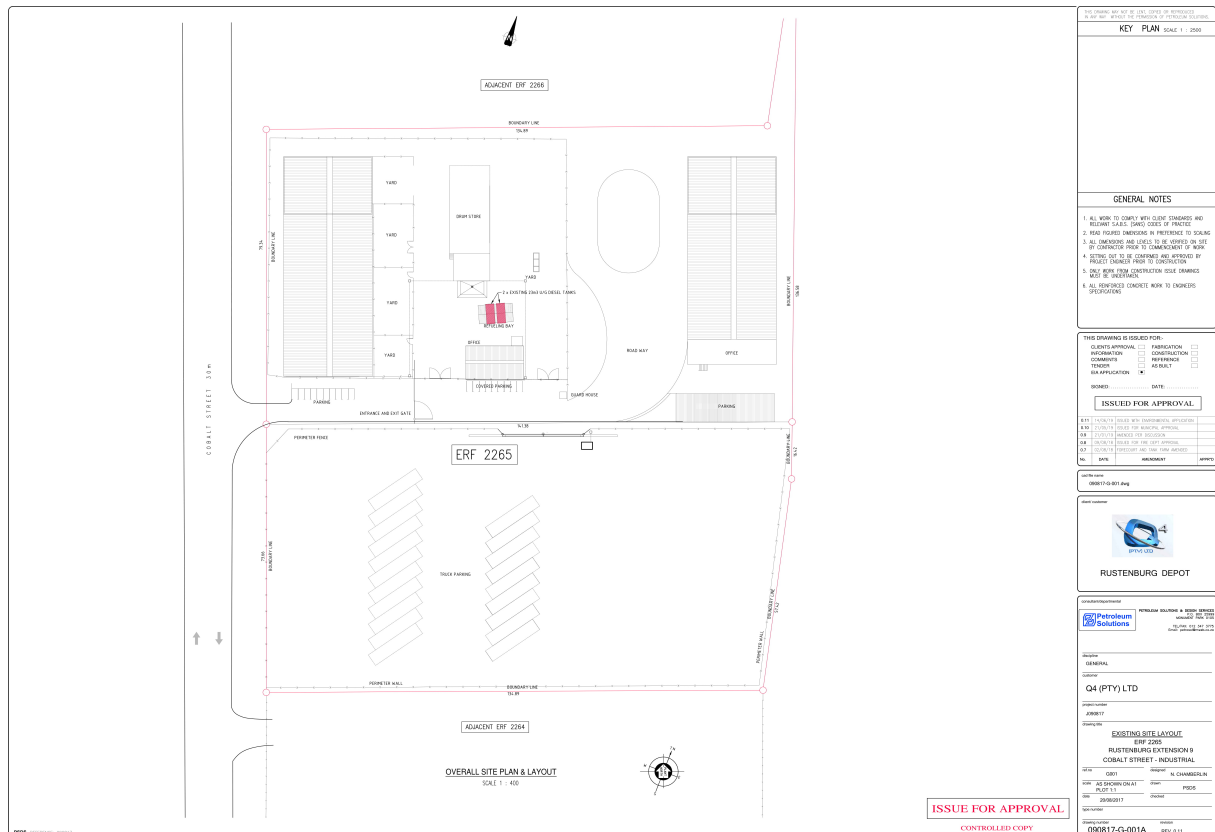


Figure 4: Existing Layout of facilities

The footprint of the activity will be as follows:

Table 2:

Schedule of areas		
Item	Bund	Footprint/ Area
1	Bund No 1	18m x 6.5m = 117m ²
2	Bund No 2	8.6m x 4.9m = 42m ²
3	Bund No 3	8.6m x 5.3m = 46m ²
4	Bund No 4	18m x 10.5m = 189m ²
5	Bund No 5	18m x 10.5m = 189m ²
		TOTAL AREA = 583m ²
6	Refuelling Bay No 1	9.3m x 5m = 47m ²
7	Refuelling Bay No 2	30m x 8m = 240m ²
		TOTAL AREA = 287m ²
	TOTAL AREA	870m²

The size of the site (within which the above footprints will occur):

Table 3:

Alternative:	Size of the site (within which the above footprints will occur):
Alternative 1 (Proposal)	2,1633 ha

7 SITE ACCESS

No new access to the site is planned. During construction all vehicle movement must be along existing roads. The existing entrance is from Cobalt road.

8 LAND USES

The landcover (or landuse) of the study area is primarily that of developed industrial complexes, hard concrete surfaces and typical factory facilities. The area earmarked for the project development is within this industrial complex setup. There is no other land uses and landcovers on site, including agriculture fields and open bushveld. The study site is totally transformed.

9 TOPOGRAPHY

The topography of the general region and study area is flat to slightly undulating plains, with no distinctive ridges, valleys, ravines or rocky outcrops. The surrounding area and study site is industrial, urbanised, where the original topography and natural environment has been altered during construction of roads, buildings, parking lots, etc.

The average height above sea level (asl) of the study area is approximately 1 147m, with a maximum and minimum elevation of approximately 1 149m and 1 146m, respectively. The average gradient (slope) across the study area is very low and averages between 0% and 1,5%. The general downward slope across the study site is from west to east, with basically no slope from north to south.

10 GEOLOGY AND SOILS

Most of the area is underlain by the mafic intrusive rocks of the Rustenburg Layered Suite of the Bushveld Igneous Complex. Rocks include gabbro, norite, pyroxenite and anorthosite. The shales and quartzites of the Pretoria Group (Transvaal Supergroup) also contribute to the geology of the area. Soils present are mainly vertic melanic clays with some dystrophic or mesotrophic plinthic catenas and some freely drained, deep soils.

11 LEGAL REQUIREMENTS

1 National Environmental Management Act

In terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA) as amended and the EIA Regulations 2014, an application for environmental authorisation for certain listed activities must be submitted to the relevant competent authority, the The Department of Economic Development, Environment, Conservation and Tourism, North West Provincial Government (DEDECT).

A Basic Assessment (BA) process for this proposed project is being undertaken by Setala Environmental. The listed activities for the proposed project are the following:

Table 4: Legislation

Description of compliance with the relevant legislation, policy or guideline:	
Legislation, policy or guideline	Description of compliance
Notice 1 of the EIA Regulations 2014, as amended	
Listed Activity	Activity/ Project Description
<p>Listing Notice 1 Activity 14 – Not Relevant The development and related operation of facilities or infrastructure, for the storage, or for the storage and handling, of a dangerous good, where such storage occurs in containers with a combined capacity of 80 cubic metres or more but not exceeding 500 cubic metres.</p>	<p>This activity will not be triggered as this project entails an expansion to an existing facility.</p>
<p>Listing Notice 1 Activity 27 - Not Relevant The clearance of an area of 1 hectare or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for – (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.</p>	<p>The construction of the proposed development will <u>not</u> entail the clearance of more that 1 hectares of indigenous vegetation. The impacted study area is 2,1633 ha, but the site is within an industrial area and yard and the entire environment is totally transformed with no indigenous vegetation.</p>
<p>Listing Notice 1 Activity 51 The expansion and related operation of facilities for the storage, or storage and handling, of a dangerous good, where the capacity of such storage facility will be expanded by more than 80 cubic metres.</p>	<p>The applicant plans to expand on the existing facilities, and proposes to construct 5 x 83m³ tanks; 1 x 23m³ tank and 1 x 14m³ tank. The combined capacity of the proposed new fuel tanks on site will thus be 452m³.</p>
<p>Listing Notice 1 Activity 67 Phased activities for all activities— (i) listed in this Notice, which commenced on or after the effective date of this Notice or similarly listed in any of the previous NEMA notices, which commenced on or after the effective date of such previous NEMA Notices; (ii) listed as activities 5, 7, 8(ii), 11, 13, 16, 27(i) or 27(ii) in Listing Notice 2 of 2014 or similarly listed in any of the previous NEMA notices, which commenced on or after the effective date of such previous NEMA Notices; where any phase of the activity was below a threshold but where a combination of the phases, including expansions or extensions, will exceed a specified threshold.</p>	<p>There is existing storage tanks of 2 x 23m³ on site. This has a combined capacity of 46 m³. The applicant plans to expand on the existing facilities, and proposes to construct 5 x 83m³ tanks; 1 x 23m³ tank and 1 x 14m³ tank. The combined capacity of the proposed new fuel tanks on site will thus be 452m³. The total combined storage capacity on site will thus be 498m³ and not exceed 500m³.</p>

2 North West Biodiversity Sector Plan (2015)

According to the North West Biodiversity Plan (2015), the study site is not within or near any critical biodiversity areas (CBAs) or ecological support areas (ESAs) (www.bgis.sanbi.org; READ, 2015).

12 FEASIBLE AND REASONABLE ALTERNATIVES

The proposal and alternatives that are considered in this application are described in the section below. Alternatives did include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished. The determination of whether the site or activity (including different processes etc.) or both is appropriate are informed by the specific circumstances of the activity and its environment.

The no-go option is included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed.

1 DESCRIPTION OF ALTERNATIVES

Table 5: Alternatives

No.	Alternative type, either alternative: site on property, properties, activity, design, technology, energy, operational or other	Description
1	Layout Alternatives Layout Proposed (Alternative 1)	<p>Due to the small size of the site and access from the link road, layout alternatives are limited.</p> <p>The preliminary layout (Layout Alternative 1) is the only feasible layout Alternative considered in this DBAR.</p> <p>The final design and layout of the facility will be based on the specifications of the fuel supplier, Q4 Fuel SA. A detailed layout for the facility, in compliance with their own internal specification, as well as relevant industry standards will be compiled. This may result in slight changes to the proposed preliminary layout.</p> <p>The sensitivity assessment takes a number of issues into consideration. These include the terrestrial and the aquatic ecology of the site and immediate surrounding area; the presence of heritage resources etc.</p> <p>According to the analyses of the floristic, faunal and overall ecological sensitivities there are no high sensitivity areas or habitats. In other words, there are no 'No-Go' areas within the study area. The ecological sensitivity of the site is calculated to be 'Low'. The whole of the site is therefore usable from a sensitivity point of view.</p>
2	Site Alternatives Alternative Property	<p>It is not feasible to consider other sites in terms of location alternatives as the property has existing operational fuel facilities. The applicant has a lease agreement with the owner of the property. Alternative locations are therefore currently not available and would involve the lease or purchase of other land / other sites. The proposed expansion is compatible with the surrounding land uses and should blend in well with the predominant industrial character of the surrounding developments.</p>
3	Alternative Activity: Current and future development trends in the area Industrial development Proposal/ preferred	<p>The site is in an area (Rustenburg X9) that has been approved for industrial purposes. Several commercial and industrial developments exist within this area thus setting the precedent and need for industrial development.</p> <p>The proposed development can be deemed desirable and in line with future development trends for the area:</p> <ul style="list-style-type: none"> ➤ The character of the area has changed over time as a result of

		<p>continuous development, supporting logistics and industrial uses.</p> <ul style="list-style-type: none"> ➤ The area appears to be vibrant and dynamic due to the establishment of a range of commercial and industrial land uses. The impact of the proposed expansion will consequently not affect the character of the area, and it is further felt that the site is ideally suited for the proposed use. ➤ It will support the existing commercial and industrial development in the area. ➤ Noises caused by the development will be in accordance with the uses within the area. <p>Based on the above, the proposed expansion on the industrial development is regarded as the preferred land use alternative.</p>
4	Technology alternatives	<p>No technology alternatives are being considered for this project as no alternatives which are feasible or reasonable are available. The storage of fuel for dispensing is governed by SANS 10089-1 and the installation of the storage tanks and associated fuel handling infrastructure will need to conform to these standards. This requirement limits the opportunity to implement alternate technology.</p>
5	Other alternatives (e.g. scheduling, demand, input, scale and design alternatives)	<p><u>Alternative 1</u> Proposal with sustainable design principles. Sustainable design principles in terms of services will be implemented where feasibly possible. i.e. Solar panels.</p> <p><u>Alternative 2</u> Proposal with conventional design principles. Only conventional design principles in terms of services will be implemented</p>

2 NO-GO ALTERNATIVE

It is suggested that to maintain the status quo is not the best option for the micro and macro environment. The do-nothing (“no go”) option would entail not developing the site and maintaining the site as is. From certain perspectives this is not a viable option as the site is situated within an industrial area. By not developing the site, the site will be anomalous in the context of the surrounding land-uses, and some of the direct and indirect socio-economic benefits (i.e. job creation, etc.) will not materialise.

From an environmental perspective, most of the site is assessed to be of LOW sensitivity. No Highly Sensitive or ‘No-Go’ habitats or environments occur on the study site. The study site is totally transformed with no sensitive habitats present. There are no priority faunal or floral species present on the site; no watercourses present and no wetlands within a 500m radius of the site; The site is not within any priority areas; critical biodiversity areas; or ecological support areas.

The No-Go development alternative could therefore not be considered the responsible way to manage the site.

13 SPECIALIST INPUT

Specialist input was obtained to investigate the impact of the various alternatives that could accomplish the purpose of the project. The specialist input is summarised as follows:

1 Biodiversity Assessment

The following information has been extracted from the Biodiversity Assessment (Ecological Assessment and Wetland Assessment) conducted by Flori Scientific Services cc.

Vegetation

The study site is situated within the original extent of Marikana Thornveld, which is a threatened veld type. However, study site is within an industrial area and yard and the entire environment is totally transformed.

Priority species

There are no priority fauna or flora species in the study area.

Protected trees in the study area

There are no protected trees on site.

Watercourses in the study area

There are no watercourses in the study area. There are also no wetlands within a 500m radius of the site.

Drainage areas

A summary of the drainage region in which the study site is situated is summarised below in Table below.

Table 6: Summary of drainage region

Level	Category
Primary Drainage Area (PDA)	A
Quaternary Drainage Area (QDA)	A22H
Water Management Area (WMA) – Previous / Old	Crocodile (West) & Marico (WMA 3)
Water Management Area (WMA) – New	Limpopo (WMA 1)
Catchment Management Agency (CMA)	Limpopo (CMA 1)
Sub-Water Management Area	Elands
Priority Quaternary Catchment	No

Fatal flaws

There are no fatal flaws. There are no 'No-Go' zones.

Priority areas

The study area is not situated within any national priority areas (such as wetlands or protected areas), and is also not within any Critical Biodiversity Areas (CBAs) or Ecological Support Areas (ESAs).

Sensitivity map

Below is the sensitivity map of the study site (Figure 6).



Figure 6: Sensitivity map

Conclusions & Recommendations

The conclusions and recommendations of the study are as follows:

- The study site is totally transformed with no sensitive habitats present.
- There are no priority faunal or floral species present on the site.
- There are no watercourses present and no wetlands within a 500m radius of the site.
- The site is not within any priority areas; critical biodiversity areas; or ecological support areas.
- There are no 'no-go' zones present and there are no recommended buffer zones.
- A few basic mitigating measures are recommended which include: monitoring erosion and dust during construction; removing all unused materials and waste during and after construction; monitoring and mechanically eradicating any weeds arising after construction and probably due to construction activities.
- There are no fatal flaws and the project may proceed, in terms of the ecological component.

2 Heritage

A Heritage Impact Assessment (HIA) is the process to be followed in order to determine whether any heritage resources are located within the area to be developed as well as the possible impact of the proposed development thereon. Setala Environmental submitted a request for exemption from conducting a Heritage Impact Assessment.

The following is applicable:

- The entire site is disturbed.
- The buildings on the property is younger than 60 years or temporary structures.
- None of these have any heritage significance.
- It is not necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999).

Due to the mentioned factors, the chances therefore of finding any heritage related features are indeed extremely slim. It is therefore believed that an additional Heritage Impact Assessment (HIA) is not needed for this project.

Recommendation:

That the development be exempted from doing an HIA.

Mitigation

Should construction work begin for this project:

The developer should note that due to the nature of archaeological material, such sites, objects or features, as well as graves and burials may be uncovered during construction activities on site. In such a case work should cease immediately and an archaeologist should be contacted as a matter of urgency to assess such occurrences.

14 IMPACT ASSESSMENT

The impacts that may result from the planning and design, construction, operational, decommissioning and closure phases as well as proposed management of identified impacts and proposed mitigation measures have been addressed in the Basic Assessment Report.

15 ENVIRONMENTAL MANAGEMENT PROGRAMME (EMPr)

An Environmental Management Programme was prepared to detail a plan of action to ensure that recommendations for preventing the negative environmental impacts (and where possible improving the environment) are implemented during the life-cycle of the project.

16 CONCLUSION

The findings conclude that there are no environmental fatal flaws that could prevent the proposed Q4 Fuel Depot development if the recommended mitigation and management measures contained in the BAR and EMPr are implemented.
